BASIS FOR THE AMENDMENT

The claims have been amended as supported by the claims as originally filed and the original specification.

New Claims 54 and 55 are supported by original Claim 27 and by paragraph [0083] at page 5 of the published specification.

New Claim 56 are supported by paragraph [0058] at page 4 of the published specification.

New Claims 52 and 53 are supported at page 9, lines 28 and 29 of the specification.

No new matter is believed to have been added by entry of this amendment. Entry and favorable reconsideration are respectfully requested.

Upon entry of this amendment Claims 8, 9 and 21-38, 40-56 will now be active in this application.

REMARKS

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The rejection of Claims 8, 9, 21-38 and 40-53 under 35 U.S.C. § 112, 1st paragraph, is traversed. The Examiner states that there is no support for component b1) as claimed. However, there is clear support in, for example, paragraphs [0035] and [0036] of the published application (US 2006/0211815). With regards to "one or more times" after the structural formula, the claims have been amended to refer to "one or w times" (w being a positive integer of 10 to 200). Thus, this rejection should be withdrawn.

The rejection of Claims 8, 9, 21-38 and 40-53 under 35 U.S.C. § 112, 2nd paragraph, are in part obviated by the claim amendments and in part traversed.

The molecular weight of the polyethylene glycol is a number average as supported, for example at page 16, line 6, of the specification. DIN 53240 describes the determination of the OH number. A translation of DIN 53240 was filed on March 13, 2008. The OH-number is always unambiguously connected with exactly one (average) molecular weight of a sample, see topic #9 of the English translation of DIN 53240. The OH-number means how much potassium hydroxide is consumed on neutralization of an OH group containing sample and is usually given in mg KOH per g sample. Since 1 mol KOH has a molecular weight of 56.1 g/mol, an OH-number of 100 means a consumption of 100 mg KOH/g=1.8 mmol KOH/g. This means that 1 g of the sample contains 1.8 mmol OH-groups. Thus, for a diol (two OH functions) the average molecular weight of the sample is 1111 g/mol. In case the molecular weight of the sample is distributed over a wide range, the OH number refers to average molecular weight. Thus, this rejection should be withdrawn.

The rejection of Claims 8, 9, 21-38 and 40-53 under 35 U.S.C. § 103(a) as obvious over WO 02/064657 (US equivalent 2004/0077777) in view of US 5,959027 and US 4046729 is respectfully traversed.

The present invention as set forth in **amended Claim 8** relates to a process for preparing a primary dispersion, said process comprising:

reacting the following components a), b1), and c) and optionally b2), optionally b3), and optionally b4) in the presence of water, thereby obtaining an aqueous primary dispersion, which comprises at least one polyurethane;

wherein

a) is at least one polyisocyanate,

b1) is at least one polyol comprising a structural unit $-[-CH_2-CH_2-O-]_w-$ one or w times, wherein w is a positive integer from 10 to 200, wherein said structural unit $-[-CH_2-CH_2-O]_w-$ is obtained from a synthesis component selected from the group consisting of ethylene glycol, polyethylene glycol having a number average molecular weight of between 106 and 2000, and ethylene oxide;

b2) is at least one polyol other than b1),

b3) is at least one compound containing at least two isocyanate-reactive groups selected from the group consisting of thiol groups and primary and secondary amino groups,

b4) is at least one monofunctional monomer having an isocyanate-reactive group, and

c) is at least one ionic or potentially ionic synthesis component,

wherein the component c) is represented by the general formula $RG-R^1-DG$,

wherein RG is at least one isocyanate reactive group,

DG is at least one actively dispersing group, and

R^1 is an aliphatic, cycloaliphatic or aromatic radical comprising 1 to 20 carbon atoms;

wherein

the fraction of the structural units –[–CH_2–CH_2–O–]–, calculated at 44 g/mol, in the polyol b1) is from 10 to 90% by weight, and

the fraction of the structural units –[–CH_2–CH_2–O–]–, calculated at 44 g/mol, in the sum of the components a) + b1) + b2) + b3) + b4) + c) is at least 3% by weight.

Amended Claim 27 relates to a process for preparing a primary dispersion, said process comprising:

reacting the following components a), b1), and optionally b2), optionally b3), optionally b4) and optionally c) in the presence of water, thereby obtaining an aqueous primary dispersion, which comprises at least one polyurethane;

wherein

first all components are mixed with water, to obtain an emulsion having a water phase,

then said emulsion is heated,

after the reaction temperature has been reached, a catalyst is added to the water phase of said emulsion, and

wherein

a) is at least one polyisocyanate,

b1) is at least one polyol comprising a structural unit –[–CH_2–CH_2–O–]$_w$– one or w times, wherein w is a positive integer from 10 to 200, wherein said structural unit –[-CH_2-CH_2-O]$_w$- is obtained from a synthesis component selected from the group consisting of ethylene glycol, polyethylene glycol having a number average molecular weight of between 106 and 2000, and ethylene oxide;

b2) is at least one polyol other than b1),

b3) is at least one compound containing at least two isocyanate-reactive groups selected from the group consisting of thiol groups and primary and secondary amino groups,

b4) is at least one monofunctional monomer having an isocyanate-reactive group, and

c) is at least one ionic or potentially ionic synthesis component,

wherein the component c) is represented by the general formula RG-R^1-DG,

wherein RG is at least one isocyanate reactive group,

DG is at least one actively dispersing group, and

R^1 is an aliphatic, cycloaliphatic or aromatic radical comprising 1 to 20 carbon atoms;

wherein

the fraction of the structural units –[–CH_2–CH_2–O–]–, calculated at 44 g/mol, in the polyol b1) is from 10 to 90% by weight, and

the fraction of the structural units –[–CH_2–CH_2–O–]–, calculated at 44 g/mol, in the sum of the components a) + b1) + b2) + b3) + b4) + c) is at least 3% by weight.

In **new Claim 54**, the catalyst is added to the oil phase of the emulsion. The claim is otherwise analogous to Claim 27.

In **new Claim 55**, the catalyst is added to the water phase of the emulsion followed by heating of the emulsion. The claim is otherwise analogous to Claim 27.

In **new Claim 56**, which depends on Claim 27, component c) is not present.

It is an object of the present invention to provide primary dispersions which comprise polyurethane, which are finely divided without the use of high shear forces, and which make it possible not only for the raw materials to be emulsified finely but also for the products to be dispersed. See page 2, 1st full paragraph of the specification.

However, WO 02/064657 (US equivalent 2004/0077777) in view of US 5,959027 and US 4046729 fail to disclose or suggest the process of producing the aqueous primary dispersions as claimed in Claims 8, 27, 54 and 55.

According to US 2004/0077777, paragraph [0014] "incorporation of ionically or non-ionically hydrophilic groups" is **not necessary**. Thus, there is no motivation to combine with other documents disclosing emulsifiers for polyisocyanates in US 2004/0077777 since this reference teaches away from doing so.

Further, US 4046729 discloses "the reaction product of ethylene glycol with a mixture of propylene oxide and ethylene oxide" (col. 8, line 49) as well as salt groups which may be anionic or cationic (col. 11, lines 1 to 36). However, the polyalkylene ether polyol according to US 4046729 contains **2 to 6** alkylene oxide units (col. 8, line 46) while the polyols of the present invention contain more alkylene oxide units than US 4046729, namely **10 to 200**.

US 5,959027 is silent about mixed polyalkylene oxides.

Thus, even if WO 02/064657 (US equivalent 2004/0077777) andUS 5,959027 and US 4046729 were combined, the present invention does not result.

Further regarding the specific structures of component c), Applicants wish to refer to dependent Claims 43, 44, 50 and 51.

"wherein the component c) is selected from the group consisting of monohydroxycarboxylicacids, monohydroxysulfonic acids, monoaminocarboxylic acids, monoaminosulfonic acids and mixtures thereof"

And

"wherein the component c) is selected from the group consisting of mercaptoacetic acid, mercaptopropionic acid, thiolactic acid, mercaptosuccinic acid, glycine, iminodiacetic acid, sarcosine, alanine, β-alanine, leucine, isoleucine, aminobutyric acid, hydroxyacetic acid, hydroxypivalic acid, lactic acid, hydroxysuccinic acid, hydroxydecanoic acid, dimethylolpropionic acid, dimethylolbutyric acid, ethylenediaminetriacetic acid, hydroxydodecanoic acid, hydroxyhexadecanoic acid, 12-hydroxystearic acid, aminonaphthalinecarboxylic acid, hydroxyethanesulfonic acid, hydroxypropanesulfonic acid, mercaptoethanesulfonic acid, mercaptopropanesulfonic acid, aminomethanesulfonic acid, taurine, aminopropanesulfonic acid and mixtures thereof."

Further, in Claim 56, component c) is not present.

Therefore, the rejection of Claims 8, 9, 21-38 and 40-53 under 35 U.S.C. § 103(a) as obvious over WO 02/064657 in view of US 5,959027 and US 4046729 is believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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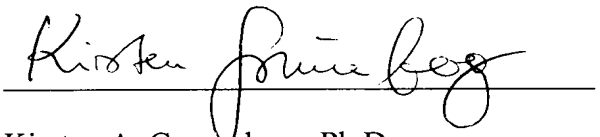

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